

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION  
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>6</sup> : <b>A61F 13/15</b>		A1	(11) International Publication Number: <b>WO 98/51249</b> (43) International Publication Date: 19 November 1998 (19.11.98)
(21) International Application Number: <b>PCT/NL98/00275</b> (22) International Filing Date: 15 May 1998 (15.05.98)		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).	
(30) Priority Data: 1006065 15 May 1997 (15.05.97) NL		Published <i>With international search report. In English translation (filed in Dutch).</i>	
(71)(72) Applicant and Inventor: VAN DER MEULEN, Sandra, Renata [NL/FR]; 6, boulevard du Plan des Abeilles, F-06230 Saint Jean Cap Ferrat (FR).			
(74) Agents: DE BRUIJN, Leendert, C. et al.; Nederlandsch Octrooibureau, Scheveningeweg 82, P.O. Box 29720, NL-2502 LS The Hague (NL).			
(54) Title: SANITARY NAPKIN FOR TANGASLIP			
(57) Abstract			
<p>A panty liner comprises a layer of hygienic material which is formed according to a central part having at two opposite ends in each case an end part, at least one end part of which is widened. The other end part is of approximately the same width as the central part, so that the panty liner is suitable for use in so-called thong briefs. The central part and the other end part can form a strip with parallel longitudinal edges.</p>			

**FOR THE PURPOSES OF INFORMATION ONLY**

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Larvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece	ML	Mali	TR	Turkey
BG	Bulgaria	HU	Hungary	MN	Mongolia	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MR	Mauritania	UA	Ukraine
BR	Brazil	IL	Israel	MW	Malawi	UG	Uganda
BY	Belarus	IS	Iceland	MX	Mexico	US	United States of America
CA	Canada	IT	Italy	NE	Niger	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NL	Netherlands	VN	Viet Nam
CG	Congo	KE	Kenya	NO	Norway	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NZ	New Zealand	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	PL	Poland		
CM	Cameroon	KR	Republic of Korea	PT	Portugal		
CN	China	KZ	Kazakstan	RO	Romania		
CU	Cuba	LC	Saint Lucia	RU	Russian Federation		
CZ	Czech Republic	LI	Liechtenstein	SD	Sudan		
DE	Germany	LK	Sri Lanka	SE	Sweden		
DK	Denmark	LR	Liberia	SG	Singapore		
EE	Estonia						

## SANITARY NAPKIN FOR TANGASLIP

The invention relates to the field of panty liners. A panty liner is a hygienic product which is worn by women with a discharge. The conventional panty liners all 5 have virtually the same standard shape, with a central area which widens out at both ends.

In general, these products are satisfactory, but in certain cases wearing them gives rise to problems. For instance, it is not readily possible to wear the known panty liners combined with so-called thong briefs. Thong briefs are of very low 10 width, with the result that the panty liner projects at the sides, which is uncomfortable.

The object of the invention is therefore to provide a panty liner which is better suited for combining with thong briefs. That object is achieved by means of a panty liner comprising a layer of hygienic material which is formed according to a central 15 part having at two opposite ends in each case an end part, at least one end part of which is widened, while the other end part is of approximately the same width as the central part.

The panty liner according to the invention is worn with the widened part facing forward. The now narrower rear end is better suited to the dimensions of the 20 thong briefs at the position of the crotch, so that wearing of the panty liner is considerably more comfortable.

The panty liner can be designed in various ways within the limits described above. However, an embodiment in which the central part and said other end part form a strip with parallel longitudinal edges is preferred. The mutual length 25 dimensions of the strip and the widened end part can vary; the strip can even be of about the same length as the widened end part.

Moreover, the widened end part can be bounded by straight longitudinal edges which diverge from the central part.

As in the case of the known panty liners, a band of adhesive can extend over 30 both end parts and the central part, which band is covered by a removable film. The band of adhesive and the film can be of the same width as the strip formed by the central part and the other end part.

An exemplary embodiment of the panty liner according to the invention will be described in greater detail below with reference to the figures.

Figure 1 shows a panty liner according to the invention in perspective, with partially removed film.

5 Figure 2 shows a top view.

Figure 3 shows a person with thong briefs.

Figure 4 shows a view of the top side of the thong briefs, with the panty liner.

The panty liner shown in Figures 1 and 2 comprises a central part 1, and an end part 2 which is of approximately the same width. There is also an end part 3

10 which is widened relative to the central part 1 and the end part 2. The central part 1 and the end part 2 of approximately the same width form a strip 4, the longitudinal edges 5 of which run approximately parallel. The widened end part is likewise bounded by straight edges 6 which diverge.

As shown in Figure 1, a band of adhesive material 7, on which a film 8 is  
15 removably provided, can be fitted. The film 8 is of exactly the same shape as the panty liner, in such a way that the latter is fully covered.

In use, the panty liner is worn as shown with reference to Figures 3 and 4. The thong briefs 9 shown there are shown partially in top view in Figure 4. The front side of the thong briefs is indicated by reference number 10, the rear side by 11.

20 The widened part 3 of the panty liner is worn at the front side of the thong briefs 10. The strip 4, which comprises the central part 1 and the end part 2, is of approximately the same width as the crotch part 12 of the thong briefs 9, in such a way that the panty liner does not project, and wearing it is comfortable.

The following measurements are mentioned as a non-limiting example. The  
25 central part 1 and the end part can be 25 mm to 30 mm wide; the widened end part 3 can be 45 mm to 52 mm wide.

Claims

1. Panty liner, comprising a layer of hygienic material which is formed according to a central part (1) having at two opposite ends in each case an end part (2, 3), at least one end part (3) of which is widened, characterized in that the other end part (2) is of approximately the same width as the central part (1).
2. Panty liner according to Claim 1, in which the central part (1) and said other end part (2) form a strip (4) with parallel longitudinal edges (5).
3. Panty liner according to Claim 1 or 2, in which the widened end part (3) is bounded by straight longitudinal edges (6) which diverge from the central part (1).
4. Panty liner according to Claim 1, 2 or 3, in which a band of adhesive (7) extends over both end parts (2, 3) and the central part (1), which band is covered by a removable film (8).
5. Panty liner according to Claims 2 and 4, in which the band of adhesive (7) and the film (8) are of at least the same width as the strip (4) formed by the central part (1) and the other end part (2).
6. Panty liner according to one of the preceding claims, in which the width of the widened end part (3) lies between 45 and 55 mm.
7. Panty liner according to one of the preceding claims, in which the width of the central part (1) lies between 25 and 30 mm.

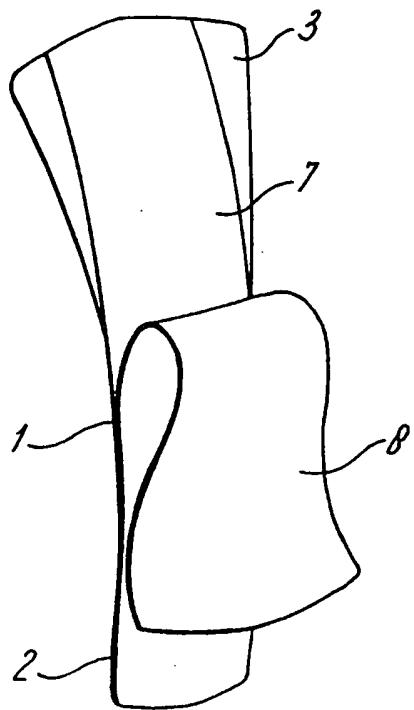
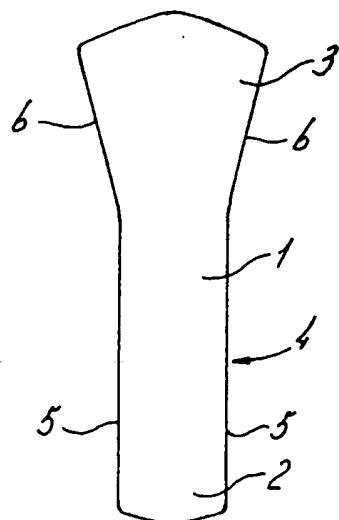
fig-1<sup>1/2</sup>

fig-2



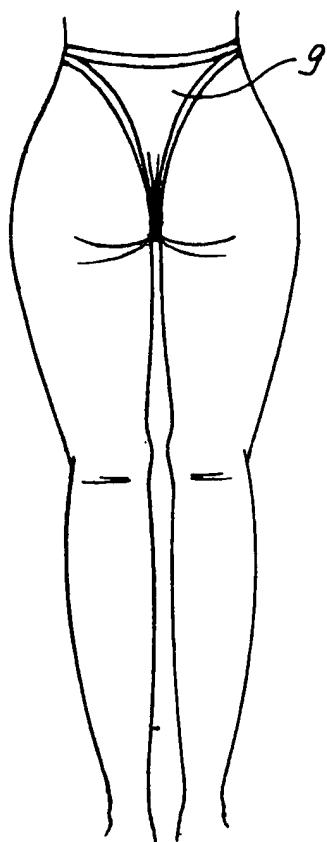
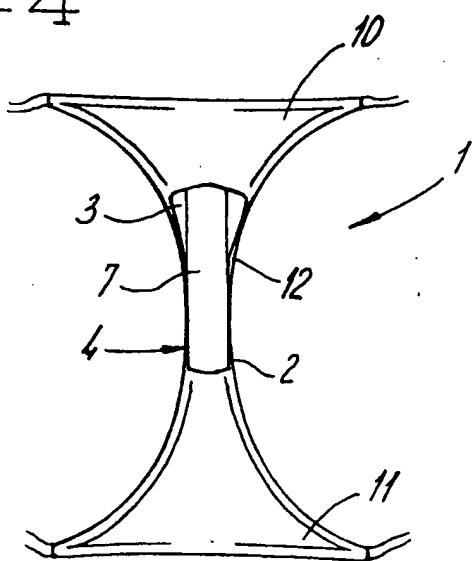
2/2  
Fig - 3

Fig - 4



# INTERNATIONAL SEARCH REPORT

Int. Application No  
PCT/NL 98/00275

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 6 A61F13/15

According to International Patent Classification(IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 6 A61F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	FR 2 694 187 A (COUEPEL SYLVIE) 4 February 1994 see the whole document	1-7
X	US 3 441 025 A (RALPH HAROLD J) 29 April 1969 see column 2, line 33 - column 4, line 37; figures	1-3
X	DE 87 05 429 U (WIEDEMAYER) 27 May 1987 see the whole document	1,2,4-7
X	US 5 127 911 A (BAHARAV EVA) 7 July 1992 see column 6, line 45 - column 8, line 51; figures	1,2,4-7
		-/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

\* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "8" document member of the same patent family

Date of the actual completion of the international search

20 August 1998

Date of mailing of the international search report

27/08/1998

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040. Tx. 31 651 epo nl.  
Fax: (+31-70) 340-3016

Authorized officer

Douskas, K

**INTERNATIONAL SEARCH REPORT**

International Application No  
PCT/NL 98/00275

**C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT**

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 383 868 A (HYUN KWANG H) 24 January 1995 see the whole document -----	1-7

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

Int'l. onal Application No  
PCT/NL 98/00275

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
FR 2694187	A 04-02-1994		NONE	
US 3441025	A 29-04-1969	US	RE28483 E	15-07-1975
DE 8705429	U 27-05-1987		NONE	
US 5127911	A 07-07-1992		NONE	
US 5383868	A 24-01-1995		NONE	